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REPORT

OF THE

BOARD OF AGRICULTURE

TO THE

CALIFORNIA STATE AGRICULTURAL SOCIETY,

AT THE

ANNUAL MEETING,

January 26, 1865,

WITH A SYNOPSIS OF THE PROCEEDINGS OF THE ANNUAL MEETING, AND A MEETING OF THE BOARD.

SACRAMENTO:
H. S. CROCKER & CO., PRINTERS, 92 J STREET.
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STATE BOARD OF AGRICULTURE, FOR 1865.

President,

C. F. REED.....Grafton, Yolo County

Directors,

C. T. WHEELER.....Sacramento
JOHN H. CARROLL.....Sacramento
EDGAR MILLS.....Sacramento
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T. L. CHAMBERLAIN.....Placer
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DR. R. OXLAND, F. C. S.....San Francisco

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PROF. J. D. WHITNEY.....San Francisco

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T. M. LOGAN, M. D.....Sacramento

Zoologist,

J. G. COOPER, M. D.....San Francisco

Entomologist,

H. BEHR, M. D.....San Francisco

Botanists,

A. KELLOGG, M. D.....San Francisco
PROF. H. N. BOLANDER.....San Francisco

Annual Address for 1865, *by*

JOHN F. MORSE, M. D.....San Francisco

REPORT.

GENTLEMEN :—This being the year in which no report to the Governor is required by law, the Board will reserve a more detailed report of the year's transactions until the proper time shall arrive, and proceed to give to the members of the Society a brief account of their stewardship, and to make such suggestions and recommendations as their experience and the condition of the Society and the State seem to demand.

One year ago, when we assumed charge of the affairs of the Society, it was at the close of a year of prosperity to all classes of industry in the State. The agriculturist had been blessed with a plentiful harvest, which had enabled and induced him to prepare for an extensive field of operations, with bright hopes that his renewed efforts would again be crowned with success. The miner, in addition to extracting from the placer deposits and quartz ledges the usual quantities of the precious metals, had extended his discoveries and developed new regions of unusual richness, and was confident in the prospect of a year of unequaled prosperity. The mechanic, the manufacturer, and all other classes of the community dependent on the two former for encouragement and support, had received a corresponding impulse and were looking forward to the new year cheered with confidence and hope.

Under the judicious and economical management of our immediate predecessors, the financial condition of the Society had been much improved. A portion of a large debt which had been allowed to accumulate against the Society during a series of previous years had been canceled. A change of administration had, to a certain extent, checked the increasing dissatisfaction and want of confidence, so prevalent in the community toward the Society and its management. Under these circumstances, and with reliant expectation of material aid from the State, the Board met on the 9th of February, and by unanimous vote resolved to hold a general Fair of every Department of Industry of the State in the following September.

The Legislature, then in session, contrary to our expectations, and, as we think, acting upon a very short-sighted policy, withhold the usual appropriation for the payment of premiums. The

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much hoped-for rains, which had been deferred during the Winter, failed to fall in the Spring, and it soon become very evident that all the industrial interests of the State, which had but a short time before seemed so promising, must suffer materially, if not prove to a great extent a failure. The Board, therefore, rather than risk a general Fair, with so poor a prospect of a creditable exhibition, and with almost a certainty of a financial disaster, reconsidered its former action, and determined to conform its operations strictly and rigidly to the circumstances in which the State and the Society were placed. The law, however, establishing the Society and creating the Board of Agriculture and defining its duties, as well as the tenure by which the Society holds some of its most valuable property, required that a Fair of some description should be held. In an ordinary season, to select one branch of industry, however attractive or important, and bestow upon it the patronage and encouragement of the Society, to the neglect of all others, would be as unwise on the part of the Board, as it would be unjust to those branches neglected. The effects of the drought, however, upon the cereals, and all the various crops of the husbandman; the scarcity of grazing for stock, compelling the owners of cattle and sheep to drive their herds and flocks to distant portions of the State and out of the State for subsistence; the empty treasury of the Society and the general scarcity of money among the people, admonishing the Board of the propriety of a light bill of expenses, all plainly indicated the character the Fair should assume in order to render it, even in one department, a success.

It was evident that no other course than the one pursued could, with safety to the existence and future prosperity of the Society, be adopted, and even as to this, the Board was in doubt.

At this period of affairs, the citizens of Sacramento, with a liberality equaled only by their enterprise and perseverance, came forward and, by subscription, placed at the disposal of the Board over five thousand dollars, to be awarded as purses and premiums for a horse show.

The sum of six thousand nine hundred and thirty dollars were offered in premiums and purses, so distributed as to render the exhibition a feature of attraction and a lesson of usefulness to the admirers of all classes of horses, from the sturdy draught, to the fleet and beautiful thoroughbred. All preparations were carefully, economically and well completed, and the Fair was held. It proved a success in every respect beyond the most sanguine expectations of the Board. The maxim that "whatever is worth doing at all, is worth doing well," having been adopted in the beginning, it was strictly adhered to in every particular. The very liberality of the purses, and premiums offered, gave tone and character to the exhibition. The high value of the stakes to be lost or won gave everybody the impression that the Fair

must be a grand success, and no one went away disappointed or dissatisfied. The superior grade and quality of the stock on exhibition, indicates the certain and positive improvement we are making in this very important branch of agriculture. The game and speed exhibited by the California-bred contestants for purses, both in trotting and running races, places California proudly upon the turf record, by the side of, if not in advance of any other State in the Union. Indeed, we think we may be permitted to say that the Fair of the State Agricultural Society of 1864, taking all things into consideration, has formed one of the brightest pages in the history of the turf, and very prominently foreshadows many brighter ones for our State and the Society in the future.

While we congratulate the members of the Society upon the many happy and useful lessons of the Fair as an exhibition, we are also glad to be able to inform them that, notwithstanding the extreme unfavorableness of the season, it has proved an unprecedented financial success. Every premium and purse were promptly paid as soon as awarded or won, and even more than were offered. Every item of expense made and audited by the Board has been promptly and satisfactorily canceled. The handsome sum of $8,412 72 of the old indebtedness of the Society has been discharged, leaving the present indebtedness, including interest to January 13th, $11,334 65, against $26,473 56 on the 12th day of March, 1863, when the Board of Agriculture was organized and the affairs of the Society were placed in its hands.

When we take into consideration the embarrassing circumstances, both pecuniarily and otherwise, in which the Society was found to be at that time, and the difficulties it has encountered and overcome since, and that it has still been able to work out, in less than two years, this substantial financial result, and regain to so large an extent the confidence and good will of the community, we are forced to the conviction that, with the enormerous receipts of former years, the Society should to-day have occupied a very different position among the useful institutions of the State, from the one in which we find it. Instead of being poor and its energies crippled with the incumbrance of a large debt, it should have been in the enjoyment of such means and facilities as would have enabled it to exert a powerful influence in the direction and development of all the material interests of the State.

The mineral cabinet of the Society has not received so great accessions during the last, as during the preceding year, owing to the general depression of the mining interest, following the unhealthy excitement of 1862 and 1863. However, many valuable specimens have been added to the collection. The Amador County Agricultural Society has donated a cabinet of over two thousand specimens, mostly from the valuable copper mines of

that county. And Amador claims, and is entitled to the distinction of being the banner county of the State, as regards contributions to the State Society's Cabinet.

Most of the newspapers and periodicals of the State, with a liberality not shown by the press in any other part of the world, have continued to furnish the Society with their regular issues. All these have been carefully filed away and preserved, and when bound will constitute an invaluable portion of the Society's library. It will contain a most complete general and local history of the State and its interests. The contributors are entitled to the thanks of the Board and the Society. And here we would also say that the California Steam Navigation Company, Wells, Fargo & Co., and the various stage and railroad companies in the State, have, by their uniform liberality, placed the Society under lasting obligations. Valuable contributions of statistical reports of various departments of the General Government have been received from our Senator, John Conness, and Representatives Higby, Cole and Shannon. The Society has also been the medium of the above named parties and Isaac Newton, Commissioner of Agriculture at Washington, for the distribution of a large number of the annual and bi-monthly reports of the Agricultural Department, as also of many varieties of new and valuable seeds. The latter have been given out to parties who have promised to exhibit the products, by sample, at the succeeding Fair; but owing to the drought, very few of those distributed last Spring have been heard from. No seeds, except a few packages of wheat, have been received yet this season. Vegetable seeds are usually received too late for use the same year, and hence many varieties are damaged by age. The attention of the Department has been called to this fact.

We are under obligations to B. B. Redding, Secretary of State, for Statutes of 1863–4; to W. C. Stratton, State Librarian, for Journals and Appendix of the Assembly and Senate; and to C. W. Wyman, of Massachusetts, for six volumes of the Transactions of the Massachusetts State Board of Agriculture—a valuable contribution.

The Society's reports for 1863 have been published and distributed throughout our own State, and many copies mailed to leading journals and agricultural and other industrial societies in the Atlantic States and Europe. Correspondence has also been opened with these institutions, with direct reference to increasing the size and usefulness of our library, and the Board confidently anticipates satisfactory results.

The Constitution of the Society has not been amended since the passage of the law creating the Board of Agriculture. To make it conform to the change in the management of the Society, some alteration will be necessary, and perhaps no time more appropriate for making such alterations will be found than the

present meeting of the members. If the Society should conclude to make such alterations, the Board will suggest some additional ones, which, we think, will tend to enlarge the sphere of its usefulness, and to render its published transactions more practical, and give them a more reliable and authentic character. It has formerly been the custom of the Directors of the Society to appoint Visiting Committees, who have traveled at great expense to the Society, on exploring expeditions, the scope of their observations embracing every department of industry through the whole length and breadth of the State, and even into adjoining States. These Committees have reported to the Board, for embodying in the published Transactions, with tiresome minuteness, where and how they went, and all they saw.

It is doubtful whether the benefits derived from such a custom are equal to the necessarily great outlay. It is believed that the objects for which the practice was instituted may be attained in a much more reliable and authentic manner, and with comparatively little expense. There are men of ability and practical experience in each particular branch of industry, in every part of the State, who would, no doubt, if requested, be willing to act as officers or Committees of the Board, in collecting and reporting to them, annually, facts and useful and reliable information in the particular department for which they are qualified and for which they should be appointed.

We have geologists of high character and standing among us, whose business calls them to a constant investigation of the geological structure and advancing development of our mining regions, and whose opinions have great weight, both at home and abroad. Let the Board appoint some one of these as the geologist of the Society, and ask of him a practical report of the character of our different mineral sections, and the progress and improvement annually made in mining. Such reports would be, of course, brief and adapted to the general reader, and being published in the annual transactions of the Society, would reach a class of readers who would never see the elaborate reports of the State Geologist, now in process of publication. And here we think it not improper to remark, that while the General Government is directing its inquiries and investigations to determine in what manner to manage or dispose of the public domain embraced within that portion of our State usually denominated mineral lands, so as at once to produce the greatest revenue to her treasury, and be of the most benefit to the occupants of the same, perhaps it might be well to inquire what the effect upon the future wealth and industry of the State would be were those lands to be disposed of in such a manner as to invite and induce the permanent occupancy and cultivation in vineyards, of those millions of acres located on the hill and mountain sides, and in the countless valleys, which, from actual experience and by the

chemical analysis of the soil and the favorable atmospherical phenomena are proved capable of producing wines and raisins equal, if not superior, to the most excellent productions of the most favored wine-producing countries, not excepting the celebrated wines of the Johannisberg and delicious raisins of Malaga. Under our present system of mining regulations and laws, very few of these acres will be thus cultivated until the title to the same is vested in the cultivator. Their management or sale becomes a serious question of State as well as national policy. It is the interest as well as the duty of the people of the State to indicate to the General Government the proper policy to be adopted in regard to them. It is better to take time by the forelock and control and direct that policy for our own interests and the best interests of the Government, than, when too late, to condemn a policy which may be to the detriment of both. Every department of industry is equally interested in the question, for when you touch the mines with the hand of oppression you oppress every other interest, and when you encourage and stimulate the development of the mines, you encourage and stimulate every other pursuit. In this respect, if not in the actual investment of money, we are all miners and all cultivators of the soil. A Convention, embracing all the States and Territories on this side of the continent, called during the ensuing Summer, for the discussion of this subject, might lead to good results.

Our wine-making interest is becoming one of the greatest industrial interests of the State. It excels that of any other State in the Union. Yet there is not perhaps another branch of industry, in regard to the practical operations of which, there is so much ignorance among our people as this. The varieties of grapes best adapted to wine-making in our State, or in the different localities of it; the chemical properties of the soil required for superior wines; the atmospherical influences of different localities; the manner of planting the vine and tilling the vineyard; the gathering and pressing the grape, and fermenting and after-treatment of the juice or must until it is converted into wine—are all subjects about which our people have but very little practical or satisfactory information, and upon which there is prevailing, in all our agricultural communities, the most lively interest and intense desire for knowledge.

If the Board were to appoint some competent person as a chemist to the Society, who would, under its sanction and in his official character, receive and analyze for a fair compensation, to be paid by the applicant, the soils of different localities, and the juice of grapes grown in the different wine-growing districts, and keep a careful record of his operations, to be reported to the Board, and if at the same time they were to enlist in their service, as Committeemen, intelligent and practical cultivators of the

vine and wine manufacturers in the different localities, who should also report their observations, experience and opinions to the Board, all to be embodied in the published transactions, they might perhaps be able to form some well defined landmarks, which may serve as incentives to enterprise, and guides in the prosecution and development of this great resource of wealth and prosperity. If successful in the accomplishment of this object, the Society would have rendered a service to the people and the State greater and more lasting than if, by some supernatural power, they were to convert the whole bulk of Mount Diablo into gold dollars and distribute them equally between every man, woman and child within her borders.

The present anomalous condition of the general stock-raising interest of our State may well attract the serious apprehension of and engage the attention of the political economists and the best business minds among us. The annual record of death by starvation of a large percentage of the stock of our State, has become almost as much a matter of course as the periodical return of our rainy seasons. During the unusually dry season of the past Summer, a great number of stock were driven to the mountains of the Sierra Nevada and Coast Range, where they found an abundance of food to carry them safely through the dry season, but to return to the valley ranges to enrich the soil with their decaying carcasses. Many others were driven to the low land surrounding the confluence of our large rivers, where sufficient feed for the subsistence of nearly half of the stock in the State, during the Summer seasons, has for years past been allowed to go to waste annually; but, when forced from these luxuriant fields, by the sudden rise of the waters, the same destructive fate awaited them as did those from the mountains. The last was an extraordinary season, it is true, but if the owners of large herds of stock would pursue the same course in ordinary seasons that they did the last they would make a great improvement over the usual custom of pasturing them on the same ranges during the Summer on which they are compelled to keep them during the following Winter.

But to reform and correct the evils and drawbacks attending stock raising seems to require a pretty thorough revolution in the whole farming system. The owners of large herds and flocks will be compelled to reduce them to such a number as they can provide Winter food for; and the farmers who have heretofore turned their attention almost exclusively to grain raising, will find it much more profitable to raise a greater variety of crops, and include in their annual sales of the products of the farm, a few young horses, fat cattle, sheep and hogs. The statement of two or three facts, will serve to illustrate the extraordinary and disastrous condition of this branch of industry, as it is now seen. During the last Summer

when it became evident that the hay crop in a large portion of the State must prove a failure, and consequently command a high price, many persons resorted to the tule lands at the mouths of the San Joaquin, Sacramento and Cosumnes rivers, in search of the desired article. Here they found thousands of acres of natural meadows, upon which were cut and secured, according to statistics collected by the Secretary of this Board, and careful estimates made by men of good judgment engaged in the business, not less than fifty thousand tons of a very fair quality of hay. According to the same estimates, there were left standing uncut at least an equal amount. Yet within sight of these extensive meadows, much of them unclaimed and unappropriated by anybody, large flocks of sheep and herds of cattle have been reduced by starvation since the rainy season commenced from twenty-five to fifty per cent. in numbers, and probably thirty-three per cent. in the weight of those yet alive. Again, when this hay was cut and freighted to localities where principally demanded for use, the expense upon it per ton, as a general thing, amounted to more than an ordinary stock cow or bullock would sell for, and consequently to Winter such an animal upon it, would cost more money than the animal would sell for when wintered.

These are extraordinary cases in an extraordinary season, but to a certain extent they occur every year, and to the full extent may occur again. To prevent such recurrence, and to bring about a healthy change in the management of this branch of agriculture, are objects worthy the attention of those who may hereafter control the transactions of this Society and the economies of the great interests of the State.

The vast amount of staging on this coast, and the transportation of goods and machinery from navigation to the various mining localities in this State, Nevada and the surrounding Territories will, until such times as railroads shall supersede these modes of conveyance, continue to create a great demand for valuable horses and mules, and large quantities of grain for their subsistence. To raise a horse or a field of grain may not generally require a greater degree of skill than is possessed by any ordinary farmer. But to raise and prepare for market a large number of good horses with profit to the owner, and well adapted to the business for which they were intended, requires a good degree of knowledge of the principles of breeding, the economies of feeding such animals, and the judgment to apply such principles and economies for the attainment of the end in view.

To make a given number of acres of land produce the largest amount of grain and other food that it is capable of producing, without deterioration of the soil, for a series of years, requires a much greater degree of skill and scientific knowledge than is usually exercised, at least by the generality of farmers in this country.

The truth of this latter statement will be apparent when it is proved, as it has been, by statistics collected by our Secretary during the past year from reliable sources, that most of the grain land in California will, when Summer-fallowed, produce eight-tenths more grain per acre than when plowed and sown after the rainy season sets in. Yet not one-twentieth of the land devoted to grain raising for years past has been Summer-fallowed.

It is proper to remark, however, that great improvement in the manner of preparing the soil and putting in the seed this season over past years is manifest in every part of the State. The efforts of this Board, through its Secretary, in calling the attention of farmers to the importance of this subject, and the drought of the past season, have both contributed to this change. It is hoped that hereafter grain raising will be conducted with greater economy and upon principles which guarantee greater and more certain success. As another good effect of the drought may be mentioned the interest it has awakened in many parts of the State upon the subject of irrigation. The experience of those who have practiced irrigation for a number of years past, proves that most any of our lands situated back from the river bottoms proper, and which have heretofore been considered capable of producing only small grains, and these only in favorable seasons, may, by the judicious use of water, be made to produce in abundance and with almost absolute certainty, most any crop embraced in the husbandman's vocabulary in any climate or country. This experience has also estsblished another important fact that the best and only time necessary to use this water is during the Winter season, when all our creeks and rivers are full and capable of supplying almost any quantity desired. A thorough saturation of the soil at this time serves to mature any crop, or two or three different kinds of crops, in a season, without further irrigation. The people of the counties of San Joaquin, Los Angeles and Yolo have been the first to avail themselves of these important lessons upon an extensive scale.

C. M. Weber of San Joaquin county, has, during the last season, introduced water over his own land, and that of some of his neighbors, with the most gratifying results.

The particulars as to length of canal or amount of land that may be irrigated have not been received, though written for some time since *

*Note.—The Secretary received on the day after the annual meeting, from Dr. Holden of Stockton, a letter, of which the following is an extract, and which supplies the information written for:

"I have ascertained some interesting facts in regard to the profitable results by irrigation from Captain Weber's ditches, which are supplied by water from the Calaveras until June, the month the river usually dries up. The several ditches run about five miles and irrigate about two thousand acres, or ten farms, small sections of which were last year cultivated to wheat; the balance produced oat hay, and a superior article. The estimated value of crops

By means of a ditch and reservoir, eleven miles in length, tapping the San Gabriel river, in Los Angeles county, forty thousand acres of land which has been hitherto used only for grazing purposes, is now being irrigated and converted into one of the most fertile portions of that county, already so justly celebrated for the variety and excellence of its productions.

In Yolo county there are five main ditches, tapping Cache creek in as many different places, with an aggregate length of twenty-five miles, besides a great number of branches, all capable of irrigating at least one hundred thousand acres of as good land as the State contains. Nicholas Wycoff, the engineer, who located most of the ditches in Yolo county, and the engineer of Swamp Land District No. 18, lying mostly in that county, says, in a letter to the Secretary, "the day is not far distant when the waters of Cache and Putah creeks, in ordinary seasons, will be used upon the land, and not be suffered to pass into the tules, except at high floods—thus assisting to reclaim those valuable lands.

The people of Colusa county are also moving in this matter. They propose to take the waters from the Sacramento river, at any point above low water mark, so as not to interfere with navigation, and turn it through a canal which, including one main branch, will be one hundred and twenty miles in length, over an area of some three hundred thousand acres of black valley land in that and the northern part of Yolo county. The scheme is pronounced entirely practical by competent engineers who have made the preliminary surveys, and the people are determined to accomplish the enterprise and reap its benefits. In view of these facts, and the probability of other similar enterprises, may we not look forward to the time when most of the surplus waters of our creeks and rivers during the rainy seasons will be used to irrigate and render immensely productive all the higher lands of our valleys? As a secondary though very important result of the accomplishment of such a system of irrigation, great assistance would be rendered in permanently reclaiming the tule lands, and the improvements of our farmers, and the towns and cities on the immediate banks of the rivers would be thus relieved, to a great extent, from danger by overflows.

The mechanical and manufacturing industries of the State, though partaking of the general depression of the past year, and suffering somewhat from the state of the currency, which

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on the two thousand acres is $25,000, and without irrigation the crops would have been an entire failure. The above is the only system of ditches for irrigation in this county. The result of this first attempt of irrigating on a large scale has been so profitable and sure, many other enterprises of the kind will be undertaken in this county. Californians will find out in time that water is not only quite necessary, but the cheapest fertilizer."

has encouraged importations, have, notwithstanding, continued to enlist in their prosecution a gratifying increase of capital, and to extend their enterprises and scope to a great variety of the articles necessarily used in carrying on the various industrial pursuits, and in supplying the necessities and luxuries of every department of life.

Leather of the various kinds, boots and shoes, harness, saddles, whips, every description of cordage, building materials, granite, marble, lime, plaster, cement, wagons and carriages, railroad, passenger and freight cars; woolen goods, such as blankets of all kinds, flannels of every description, cloths and cassimeres, carpets; hats, caps and various kinds of clothing; glue, asphaltum, gunpowder, matches, tar, pitch, resin, mineral paint, spirits of turpentine, salt, soap, yeast powders, starch, vinegar, pickles, every variety of preserved fruits, jams, raisins, figs, maccaroni and vermicelli, castor oil, petroleum, wines, brandies and the various kinds of spiritous and malt liquors; paper of every variety; glass bottles of all kinds demanded, earthen and stone ware; wood, tin and wire ware; mining, mill and steamboat machinery, and machinery of every kind in use; agricultural implements and various other articles are manufactured in the State with greater or less success. Very many, in sufficient quantities to supply the home demand and keep up a very good and remunerative export trade, while others are struggling against the persevering competition of importation.

Preparations, upon extensive scales, are now being made to add to this list, railroad locomotives, shot, and lead pipe. The experiment of smelting copper has already proved so much of a success as to warrant the confident expectation that all our copper ores will soon be smelted within our State, and thus produce a complete revolution in our copper mining interest. The experience of nations proves that no classes of industries aid more in enriching and rendering a State independent than mechanics and manufactures. California has greater natural facilities for becoming an extensive manufacturing State than any other in the Union, and her isolated position furnishes a strong reason for fostering and encouraging them.

For the advancement and improvement of all these objects, and, indeed, all the industries of the State, was this Society instituted. While the holding of annual Fairs, at which the products and improvements of every department of industry are exhibited for comparison and instruction, and to stimulate emulation and enterprise, is calculated to do great good, and should therefore be continued; yet, for the financial success of the Society, the Fairs should be made to assume such a character as will prove at once the most attractive and least expensive. It should be no ground of complaint should the Board adopt this policy.

There are other and less superficial mediums through which, in addition to the one just named, the Society may render itself equally beneficial to our present population and their material interests, and enlarge and extend its sphere of usefulness, so as to enhance more perceptibly and certainly the State's future prosperity.

Among these may be mentioned a means already adverted to, the appointment of competent Committees to investigate and report upon the present condition and best means of improvement in each branch of industry. These reports should assume the character of short, practical, and to some extent scientific, treatises, wholly Californian in their character and application. The Society should also own an experimental farm, with all the facilities and appliances for practically teaching and illustrating agriculture, in all its branches, as adapted to the peculiarities of our soil and climate. It should possess an extensive mineral, mechanical and agricultural museum for illustrating our natural history, our mineral riches, and our advancement in the useful arts and sciences. It should enjoy the advantages of a philosophical and chemical laboratory and an extensive library of useful and practical knowledge, for exemplifying and explaining the truths of science as applicable to the various industrial pursuits of life.

Add to these, by authority of law, the facilities of collecting agricultural and other important statistics, in an authoritative and authentic manner; and the Society would then occupy that position of usefulness for which it was originally organized, but to which few such societies attain for want of some definite aim and some constant and steady hand to guide them.

The official management of the Agricultural Societies of New York and Massachusetts have respectively been under the control of B. P. Johnson and C. L. Flint almost since their first organization. These Societies, either of them, are an honor to any country or nation, to say nothing of the States in which they are located.

The importance of reliable agricultural and other statistics to the successful and intelligent conduct of a Government, and to the advantageous direction and development of the resources of a State, are too obvious to require an argument; and particularly so in a new State, with resources so diversified as ours—and yet we regret to record the fact that we have not now, as a State, and never had any system by which such statistics have been or can be collected. In older and more thickly settled communities, with their superior facilities for communication, it has been found practical to collect such statistics, through voluntary agents, who, without compensation, except the consciousness of serving their country, devote their time and energies to the subject, and, under a system of reports to one common head,

produce a result sufficiently correct for all practical purposes. But in a State where the facilities for travel, except on general routes to a few important localities, are so limited and expensive as in ours, and where so few of our farmers have become so permanently fixed and devoted to their occupation as to inspire that interest in the cause necessary for such an undertaking, and so few are able to afford the time and means for its faithful execution, such a system will be found, as it has already been found by the last two years' efforts of this Board, almost totally inoperative. The present system of reports by the County and District Assessors to the Surveyor General has proved to be equally unreliable and uncertain. Only from one-half to two-thirds of the counties in the State being reported at all, and these reports in many instances being mere rough estimates instead of actual and careful counts. Statistics thus partial and unreliable, in the opinion of the Board, tend rather to depreciate the value and magnitude of our industrial resources, and to injure and prejudice the importance and standing of our State, both among our own people and abroad, than otherwise.

Without narrating the history of the efforts of this Board, during the session of the last Legislature, advised as they were by our immediate predecessors, and seconded by every District and County Agricultural Society in the State, to rectify these evils, and to obtain the passage of a law which would in our opinion have provided an efficient and effective system by which reliable statistics relating to all our industries and productions would have been obtained, we will venture to express the hope that our next Legislature will take a more practical and comprehensive view of the material wants of the State, and will comprehend and supply the necessity of a system by which through the proper channels, we may possess ourselves of a full sheet exhibiting all our productions and our present and future capacities. One short Statute that would effectually accomplish this object, would be of a more real and lasting benefit to our State than a whole volume of such laws as usually emanate from each session of our Legislature. Upon this subject and the necessity of State aid to Agricultural Societies, Dr. E. S. Holden, President of the San Joaquin District Agricultural Society, than whom no man in the State understands the State's necessities better, holds the following language in his last annual address before that Society:

"Last year this Society, together with several other similar associations, petitioned our Legislature to appropriate a few thousand dollars for premium money, but our Solons failed to see the benefit of such appropriations; they failed to see that three-fourths of their constituents were producing by the sweat of their brows their very existence, their bread and butter. But there was one thing they could easily comprehend, and that

was the value of bribe money to create and aid a host of rascally franchises, yearly springing up from San Diego to Siskiyou, from the Sierra to the Pacific.

"Farmers and mechanics, protect your own interests—those interests which contribute so largely to the wealth and independence of nations. Elect, as it is in your power to do, legislators who can comprehend the interests of Agriculture and Manufactures, and who will honestly protect them."

With all these appliances and facilities for usefulness, well managed, the published reports of the transactions of the Society would become most interesting and authentic exponents of the agricultural capacities, the mineral wealth, the manufacturing enterprise and the general resources of the State. Distributed among our own people, they would furnish constant incentives and valuable guides to improvement. Distributed in the Atlantic States and in the rich and populous countries of the eastern continent, they would serve as the most economical and effective agents to attract immigration to our State that could possibly be employed. Teach the skilled cultivator of the vine and the experienced manufacturer of wine, in the agricultural portions of Germany, France, Italy and other old wine-growing countries, that the wine crop has never proved a failure in California since its first introduction by the priests, 150 years ago—that owing to the peculiar adaptation of the soil and climate of our State to the growth of the vine, and the average annual product per acre, here, under good cultivation, is six hundred gallons, while that of the German States and France is not over one hundred and seventy-five, and that of Italy—the best wine-producing country in the world outside of California—is less than four hundred and fifty gallons. Teach them that there is in California over twenty millions of acres of the very best of land for vineyards, and that each head of a family can become the owner of one hundred and sixty acres of the same, by coming here and settling upon and improving it—and will not such information, rendered authentic by our official reports, turn their heads towards California? Will they remain longer than necessity compels them in their own country, where but few of them have any interest in the soil and can obtain but a poor subsistence as the reward of their daily labors? Teach these facts to foreign capitalists, and enterprising and skillful manufacturers, and they, also, will seek our shores for the profitable investment of their means, and a more adequate return for their enterprise and skill. We should soon have springing up in the various favorable localities in our State extensive wine-cellars, the owners of which would purchase the grape or must from the producer, and after subjecting it to careful and skillful treatment for the proper length of time necessary to convert into an article of that superior quality rendered susceptible by

the unequaled wine properties of the grape, and not till then, it would be found in the market for sale and consumption.

The immediate effects of this change in the management of our wine interests would be a certain and reliable increased demand for the grape and must, and a proportional increased production. The mere grape juice, of from four to six months of age, made by those professing but very little skill in its manufacture, and possessing perhaps less, would disappear from among us, and our home and foreign demands would be supplied with the various kinds of wines, equal, if not superior, to the most excellent and high-priced foreign brands.

A very large portion of the sugar consumed in the southern countries of Europe is now manufactured in France from the common white sugar beet. It is a demonstrated fact that this article can be produced in rich alluvial soil of our valleys and tule land in greater quantities per acre, and with less labor, than in any other portion of the civilized world. By chemical analysis, science assures us that, owing to the peculiarly favorable properties of our soil, the California production possesses a greater quantity of saccharine matter than the same article produced in any part of France. Taken in connection with the present and prospective high ruling prices of sugar, we have here another branch of industry promising a liberal compensation for skilled labor and a munificent return for the investment of capital, managed and directed by the lights of science and practical experience.

The cultivation of silk also, by the experience of competent judges, for some ten years, in our State has proved to be a perfect success. The mulberry tree flourishes here with a luxuriance known in no other country. The absence of moisture and explosive electricity in the atmosphere, during the season of feeding and hatching the worms and securing the cocoons, are circumstances which render our State more favorable for the prosecution of this pleasant and important branch of industry than any other country in which silk is produced.

It is a historical fact that the seasons in the principal silk-producing countries in the south of Europe have for years past been growing more cold and moist, and hence less favorable to the production of silk. These are significant facts, which may very profitably be taken into account by those who are to control the future material destiny of our State. It may not be improper here to state that J. Morenhout, Consul of France at Los Angeles, lately sent five samples of cotton produced in that county by as many different persons, to the Minister of Agriculture and Commerce in France, who, after having the same carefully examined by competent judges, returned in his official report that the samples were all identical in quality, and would command then about the same price as the short silk cotton of

the Southern States, from $62 to $63 per one hundred pounds. The experiment will be thoroughly tested in that county this year. By experiments extending through a series of years in various parts of our State, it is conclusively proved that raisins, figs, almonds, prunes, olives, all articles of commerce, and consequently not liable to overstock any market, can be produced here in equal perfection and greater abundance than in any other part of the world. In a word, to sum up the foregoing statements, we may say we know we have within our borders the elements of greatness and prosperity equal, if not superior, to those of any other State in the Union. Then, what do we lack? what do we need? The answer most emphatically is, *labor and capital.* We cannot attain material greatness or prosper well without these—without both; and capital for investment in our material resources will not, for obvious reasons, precede labor, it would follow. Then labor is the first great necessity. And how shall we obtain it? The General Government, through agents and the distribution of favorable information, is wisely and successfully exerting her means and energies to induce emigration to the United States. According to the report of the New York Commissioners of Immigration, the number of immigrants that arrived at that port during the eleven months ending the 30th of November, 1863, was 146,519, against 76,306 during 1862—showing an increase in one year of nearly fifty per cent. from extra exertion. But does the Pacific coast or California receive any portion of that immigration, or any immediate benefit from it? Very little, if any at all. The moment the new comer sets foot on shore at New York or any other eastern port he is hurried off to Illinois, Indiana, Kansas, or some other new State east of the Rocky Mountains, but never to California; hence, those States, with far less natural advantages, except as to convenient location for immigration, outstrip us in the race to wealth and general prosperity. The Pacific Railroad will, when finished, to a certain extent remove this barrier which now isolates us from the great center of our country's population. But till that time California must work out the problem of increasing her labor and capital, and of developing her own resources herself. Let California bestir herself, if she would not fall back from her present relative position among her sister States. Let her make independent and extra exertions to induce a tide of immigration to set in toward her shores before that great field for enterprise and improvement is opened up in the Southern States, to attract and hold the tide from her. Let her send out, through the Golden Gate, such a flood of reliable information in regard to her unequaled productions, her inexhaustible resources and capacities, to those great beehives of industry in the Old World as will cause a lively swarming out of their families of workers, so intent upon securing the un-

equaled benefits within their grasp here, that no half-way port will attract them from their destination.

Why should not the route from the various emigrating ports of the Old World to San Francisco, by way of Panama, become the line of attraction and travel to those who are seeking an asylum and a home in America? Bring this about, and our march is onward, our destiny certain.

To assist in the conveyance of this information, and accomplishing these objects, what channel so appropriate, what means so effective as the State Agricultural Society, when it shall occupy the position and enjoy the facilities we claim for it?

To place the Society in this position, and in command of these facilities, liberal State aid will be required. The front door of the State treasury will have to be opened by the command of the people, and some of their money used for the accomplishment of these objects. And why not? Facts and statistics are at hand to prove that no people ever became permanently prosperous, or State rich and powerful, until this policy was adopted and adhered to; and that no people or State ever adopted this policy, and continued it judiciously, without becoming intelligent and happy, and rising high in the scale of individual and national greatness.

England annually appropriates millions to auxiliary societies, similar to ours, for the encouragement of her agricultural and manufacturing interests, and the world pays tribute to her enterprise and prosperity. France, following her example, has become a power upon the earth. Germany, by early adopting this policy, has made herself an empire of knowledge and a university to the world.

Among our family of States, New York and Massachusetts are noble examples of an enlightened liberality. Then let California profit by good examples and be wise, as she would be great.

We did intend to discuss another important question to California—the establishment of an Agricultural College. But the space allowable in a report embracing so many objects is not equal to the importance of the subject. We, therefore, recommend the appointment of a Committee by our successors to take this subject under consideration and report at some future time previous to the meeting of the next Legislature.

All of which is respectfully submitted.

CHARLES F. REED, President.

I. N. Hoag, Secretary.

SYNOPSIS OF FINANCIAL REPORTS FOR 1864.

Amount of cash received from all sources (no appropriation from the State)		$13,053 00
Current expenses	$10,591 03	
Paid for warrants on General Fund	2,461 97	
	$13,053 00	$13,053 00

INDEBTEDNESS OF SOCIETY.

Amount of warrants outstanding against the General Fund, January 13, 1864	$18,526 55
Interest on the same from date of registry to January 13, 1865	1,220 82
Indebtedness at last date	$19,747 37
Warrants redeemed in 1864	8,412 72
Present indebtedness	$11,334 65

The Financial Report having been referred to a committee, was found correct, and adopted by the Society.

ELECTION.

The terms of office of the President, C. F. Reed. and of Directors Richardson, Beck and Walsh having expired, by limitation of law, the same parties were re-elected—the President for one year, and the Directors for three.

At a meeting of the Board, held immediately after the adjournment of the annual meeting, I. N. Hoag was unanimously re-elected Secretary of the Board, and R. T. Brown was elected Treasurer, Vice Coleman, resigned.

CONSTITUTION.

The Constitution of the Society was materially amended at the annual meeting. The more important changes will be found in the following extracts.

ARTICLE III.—*Memberships.*

SECTION 1. Any person who has during the year 1865, or who shall hereafter pay to the Funds of this Society, the sum of *Five Dollars*, may become a member of the same; such membership to expire on the 31st day of the following December.

ARTICLE IV.—*Officers.*

SECTION 1. The Officers of the Society shall consist of a President and nine Directors, who shall constiute a State Board of Agriculture—five of whom shall constitute a quorum. They shall elect a Treasurer and Secretary, not members of the Board. They may also appoint annually as Officers of the Board, a Chemist, a Botanist, a Geologist, a Metallurgist, a Meteorologist, a Zoologist and an Entomologist, and define the duties of each. They may appoint such Committees on the various departments of Agriculture, Mining and Manufactures, either generally, or for specific purposes, as they may deem important for the best interests of the State. and require such committees to report the result of their observations and investigations to the Board, at such times as may be named by them.

IMPORTANT BUSINESSS OF THE BOARD.

At a meeting of the State Board of Agriculture, held at the Secretary's Office, on the 22d day of February, 1865, it was determined to fill by appointment, the offices named in the Section of the Constitution last above quoted, and the Secretary was authorized and empowered to select proper persons and make such appointments, and also to appoint Committeemen in the several Departments named.

The following Rules were adopted, declaring the objects of such offices, and defining the duties of the appointees.

RULE I.

The objects of the office of Chemist to the Board, shall be the advancement of Agricultural knowledge, by the application of chemical science to the qualitative and quantitative analysis of Agricultural materials, such as soils, grains, fruits, manures, etc.; all chemical investigations of such officer for the Society shall be to this end, and shall be the property of the Society.

It shall be the duty of the Chemist to give upon application, his written opinion to the Board, upon the adaptation of any soil to any particular kind of production, and *vice versa*, or upon any subject pertaining to Agricultural Chemistry, as embraced in the duties of his office. He shall keep a complete record of all his official transactions and opinions, and shall each year report the same to the Board, together with such suggestions and observations, as his experience may dictate for the advancement of the Agriculture of California.

RULE II.—OF BOTANIST.

To obtain for record in the transactions of the Society, a full and popular description of the botanical productions of the State, both native and imported. To investigate and illustrate the physiology of plants and trees, and the adaptation of the most useful, particularly the varieties of forage plants, to our different localities and soils. To discuss and teach the importance and means of preserving the forests of our mountain districts, and to induce the cultivation of woodlands by the agriculturalists, about their homes on our rich plains and prairies.

It shall be the duty of the Botanist to labor for the accomplishment of these objects, to assist in the collection of an herbarium at the Society's rooms, and to report annually a full account of his official transactions, including such suggestions as he may deem proper to make upon this branch of the State's natural history.

RULE III.—OF GEOLOGIST.

To obtain for publication a description of the general and Agricultural Geology of the State, with particular reference to the mineral and agricultural advantages, in language and style adapted to the general reader. The collection, classification and preservation, at the Rooms of the Society of specimens of the different kinds of rocks, minerals, fossils and soils.

The Geologist shall report annually to the Board, the progress of his work, and make such recommendations as the interests of this department may require.

RULE IV.—OF METALLURGIST.

To keep for annual publication a correct and official record of the various modes of mining in this State, and of reducing and separating the different kinds of metals from their ores, and other matters. To note the improvements made in the processes of such reduction and separation, and also the improvements in the machinery used for mining purposes. To collect and place in

the Society's cabinet, specimens of all kinds of ores, and of the metals in the different stages of reduction.

The Metallurgist shall keep the record and perform the duties above indicated, and report annually to the Board the work performed, and give a *general review* of the progress of mining in this State, and such statistics as he may be able to collect, pertaining to the same, with such observations for the general advancement of this branch of industry as he may deem important.

RULE V.—OF METEOROLIGIST.

To keep a record of the various meteorological phenomena, such as the pressure, the temperature, and moisture of the atmosphere; also, the quantity of the rain at as many localities in the State as practicable.

The Meteorologist shall keep or superintend these records and report them to the Board annually, accompanied by such practical observation of their application to agricultural operations as may be suggested by his experience.

RULE VI.—OF ZOOLOGIST.

To obtain a description of the animals and birds of the State, and their habits, particularly those that are detrimental or beneficial to agriculture and horticulture. The collection, classification and preservation, in the Society's Museum, of stuffed specimens of all the native varieties of birds and of such animals as may be deemed important.

The Zoologist shall prosecute the above objects and make to the Board an annual report of the progress of the work, including any recommendations for the preservation of the useful, or destruction of the injurious, as may be called for.

RULE VII.—OF ENTOMOLOGIST.

To describe the Insects of the State, their habits and peculiarities, particularly those varieties destructive to vegetation. To collect, classify, and preserve, at the Society's Rooms, specimens of the different varieties, and report annually to the Board any observations or suggestions upon their relations to agricultural economy, and the means of preventing their ravages by their destruction or otherwise.

All reports indicated above, and also all Reports from the Committees that may be appointed to report upon the several branches of industry indicated in the section of the Constitution above quoted, to be made in writing to the Secretary of the Board, on or before the first day of December of each year, so that they may be properly arranged in the transactions of the Society, to be reported to the Governor by the first of January.

STATISTICS FOR 1865.

The Secretary has carefully prepared blanks for the collection and report of Statistics of all the more important Agricultural productions of the State, and sent them out to all the County and District Assessors, accompanied by the following circular. He has already received answers from a large number of the Assessors, saying they will cheerfully comply with the request, and the Board entertain a confident hope that they will thus be able to obtain a full and accurate table of the productions of the year. They call on the Press and the public generally, for their co-operation in the premises.

[CIRCULAR.]

ROOMS OF THE STATE AGRICULTURAL SOCIETY,
SACRAMENTO, February 7, 1865.

To the Assessor of————————:

DEAR SIR:—The State Board of Agriculture are very desirous of obtaining through some reliable channel full and correct Agricultural Statistics of the State for 1865.

They believe there is no other way in which a citizen can render so valuable

a service to the State as in aiding them in the accomplishment of this object. They also believe that the Assessors of the several districts and counties, from the nature of their duties, possess greater facilities for collecting such statistics than any other persons; and that the correct business habits necessarily possessed by a person to whom his fellow citizens have entrusted so important duties as those of Assessor, will give to statistics collected by him the stamp of character and reliability. For the above reasons the Board have instructed me to request you to aid them in this undertaking. Believing that you will cheerfully consent to do so, I have carefully prepared the accompanying blanks for the collection of such statistics as are indicated in them, and those on the opposite side of this sheet for your return of the same in a condensed form, to this office. None but the most important and easiest obtained are called for. The number of acres sown of the different kinds of crops, the number of trees planted of the different varieties, and so on, you can obtain very easily by fastening the collecting blanks in your assessing book which you carry with you, and questioning parties as you assess them.

The *amount* of the productions for 1865 you can not obtain for the reason that you will have finished your canvass before most of them will be matured and gathered. But as you are canvassing you can notice the appearance of the crops and by conversation with farmers generally you can obtain such information as will enable you to make a very correct estimate of the average bushels of the different crops per acre, and, having obtained by canvass the number of acres sown to each, you can easily estimate the whole product of your district or county. Hence the blank return sheets, in addition to the number of acres sown, call for the *estimated* products of 1865. It has been customary, with those who have given any attention to this matter heretofore, to gather the *products* of the year *preceding* the one in which the number of *acres* sown or planted, was gathered. We believe this custom has destroyed to a great extent the value of the tables thus formed, by apparently depreciating the productiveness of our soil. The aggregate products of such an exhibit, being less compared to the whole number of acres cultivated than the facts would show. Our plan will correct this error, and by continuing it we can arrive at an almost positive certainty, as next year the assessor can gather the actual products of this, and thus test the correctness of your estimates.

The return sheet has also a place for the estimate of unenumerated productions. Your District or County may produce articles not enumerated, which you may deem important to make a record of. If so, you will enumerate and return them. There are many items, however, which we can obtain from the United States Assessors and shall do so. We would like to have you also give a concise statement of the general resources and advantages of your County, whether agricultural, mineral or manufacturing. All the facts thus furnished will be embodied in the reports of our transactions to the next Legislature.

Now, as to the compensation for the services we ask of you: The Board offer a premium of **Fifty Dollars** for the best statistical and descriptive report, and **Twenty-five Dollars** for the second best—the Board to be, or to select the Judges, and the money to be paid as soon as the reports are received and examined. In addition to this, each Assessor who shall make a report to the Board as requested, will be voted a member of the State Agricultural Society, and shall receive free all publications of the Society, and copies of such as are received of the General Government for distribution.

The Board will also endeavor to obtain from the next Legislature, and they have no doubt they will be successful, an appropriation to pay you for the services you may perform this year, and an annual appropriation for the continuance of such services in the future.

Please acknowledge the receipt of this immediately, and say whether you will perform the duties requested, and whether you have received a copy of our transactions for 1863, which we mailed for you.

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If you need more blanks at any time write for them. You will find postage stamps and envelopes for your correspondence and returns enclosed.

We shall want your returns, and we presume you can make them, by the 1st or 15th of September. By order of the Board.

Very respectfully your obedient servant,

I. N. HOAG, Secretary State Board of Agriculture.

TO THE PEOPLE OF CALIFORNIA.

The State Agricultural Society, by the organization of a corps of eminent scientific gentlemen, is now prepared to take the lead and give aim and direction to the development of all the various resources of the State, by the experimental and scientific investigation of every subject pertaining to the agricultural, manufacturing and mining interests.

Also, to contribute in an authentic and official manner, to every branch of the natural history of the State, by the collection, classification and preservation of facts and phenomena in the meteorological world, and of specimens from our geological, botanical and animal kingdoms.

By enlisting the co-operation of the county and district assessors of the State—the assessors of internal revenue, and business men generally, it is proposed to collect and preserve a full and complete record of the productions of all our industrial pursuits.

Our Chemist and Metallurgist, Dr. R. Oxland, Professor of chemistry in the Toland Medical College at San Francisco, is prepared to make correct assays of the different metals, as gold, silver, copper, iron, tin, etc. Also, to analyse different kinds of manures and soils, and petroleum, asphaltum, bitumen, etc. He has had a large experience in the manufacture of sugar from beets, and refining the same, and in agricultural and manufacturing chemistry generally, and is prepared to give instruction in all these departments. For any work done in any branch of his department, *members* of the *Society* will be allowed twenty per. cent discount from the usual prices.

Dr. Kellogg and Prof. Borlander will analyse and classify any specimens of vegetable productions forwarded to them. Prof. Borlander has given much time to the study of the grasses, and Dr. Kellogg to the floral department of Botany.

Dr. Behr may be consulted upon the insects, and Dr. Cooper upon the animals, birds and reptiles of the State—both having given these specialties much time and attention, are prepared to give correct information.

Dr. Logan will investigate any atmospherical phenomena, or climatic changes, to which his attention is called. Records and observations heretofore published by him testify the soundness of his knowledge.

The above gentlemen have all been consulted personally by the Secretary, and have each accepted the position to which he has been appointed.

Prof. Whitney is not in the State, but his friends give assurance that he will accept the position, and give his eminent abilities to the success of the enterprise.

Committees in all the departments of agriculture will be appointed as soon as the right men can be secured. A premium list for the Fair of 1865, embracing every industry in the State, will be published as soon as it can be completed.

The Board call upon the *people* and the press of every county in the State, for their earnest and *practical* co-operation and support—and they doubt not they will receive it. Geological, metallurgical, botanical, zoological, and entomological specimens, and curiosities of every kind, are solicited for the cabinet and museum, and may be forwarded to the Secretary through Wells, Fargo & Co.'s Express, free of charge. By Order. I. N. HOAG, Secretary.

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